5.2 DRUM, CARBOY, AND CONTAINER SAMPLING RESULTS

Building #7

Analytical results for the six samples collected from drums and containers located on the first floor of Building #7 indicated the presence of VOCs in one sample. Sample B7-DS-02 collected from a 55-gallon drum located on the first floor contained methylene chloride (380 µg/kg), toluene (4,100 µg/kg), ethylbenzene (250,000 µg/kg), o-xylene (390,000 µg/kg), m,p-xylene (710,000 µg/kg) and isopropylbenzene (21,000 µg/kg). No other drum or container sample collected from the first floor of Building # 7 contained VOCs above the analytical quantitation limits. Various VOC TICs were also reported in samples collected from drums and containers located on the first floor of Building #7 including samples B7-DS-02, B7-PS-03, B7-PS-01 and B7-CS-02.

No aroclor compounds or significant levels of inorganic compounds were reported in any of the samples collected from drums or containers located on the first floor of Building #7. The only compound reported from the TCLP analysis of these samples to exceed the corresponding regulatory level was pyridine, which was detected at an estimated concentration of 98,000 micrograms per liter (µg/l) in sample B7-CS-02 collected from a 5-gallon plastic container located in the first floor stairwell of Building #7. Sample B7-CS-02 was the only sample to exhibit the characteristic of ignitability with a flash point of 130º F. No sample collected from the third floor of Building #7 exhibited the characteristic of corrosivity.

Sample B7-CS-03 collected from an open 30 gallon carboy drum located on the second floor of Building #7 contained methylene chloride at 410 µg/kg. No aroclor compounds or significant levels of inorganic compounds were reported in sample B7-CS-03. The TCLP analysis for the sample collected from this carboy did not reveal any compound that exceeded the corresponding regulatory level. This sample did not exhibit the characteristics of corrosivity or ignitability.

Building #12

Analytical results reported from samples collected from the two drums (B12-DS-02 and B12-DS-01) and one 5-gallon container (B12-PS-01) located on the first floor of Building #12 indicate that they contain VOCs. Specifically, the sample collected from the 55-gallon drum identified as DS-01 contained methylene chloride (32,000 µg/kg) and bromochloromethane (2,300 µg/kg); the 55-gallon drum identified as DS-02 contained acetone (39,000 µg/kg), methyl acetate (11,000 µg/kg), methylene chloride (5,500 µg/kg), methyl tert-butyl ether (3,100 µg/kg) 1,1,1-trichloroethane (2,100 µg/kg), cyclohexane (13,000 µg/kg) and carbon tetrachloride (720 µg/kg). The oily sample collected from the pail identified as PS-01 contained acetone (13,000,000 µg/kg) and 2-butanone (67,000 µg/kg). VOC TICs were also reported in the samples collected from DS-02 and PS-01.

No aroclor compounds were detected in the samples collected from the 55-gallon drums; there was insufficient volume to perform the aroclor analysis on the oily sample collected from PS-01. There were no significant levels of inorganic compounds reported in any of these samples and the TCLP analysis did not reveal any compound that exceeded the corresponding regulatory level. In addition, none of the container samples exhibited the characteristics of corrosivity (pH less than 2 or greater than 12.5) or ignitability (flash point less than 140º F).

The analytical data for the samples collected from drums and containers located within Building # 7 and Building #12 are summarized in Appendix D, Tables 6 through 10 and the sampling locations and concentrations detected above the analytical quantitation limits are presented on Figures 12 and 13. The ignitability/corrosivity test results are provided an Attachment 1.

5.3 BASEMENT SAMPLING RESULTS

Building # 7 Basement

Analytical results from aqueous samples B7-BW-01 and duplicate sample B7-BW-03 collected from the subbasement of Building #7 revealed numerous VOCs up to a maximum concentration of 430 µg/l reported for toluene. Numerous VOC TICs were also reported in these samples. The second subbasement aqueous sample collected from Building #7 (B7-BW-02) contained no VOCs or VOC TICs above the laboratory quantitation limit.

SVOCs were also detected in the subbasement aqueous samples collected from Building #7 including phenol (up to 13,000 µg/l), 2-methlyphenol (up to 13,000 µg/l) and 4-methly phenol (up to 4,700 µg/l). The pesticides alpha-BHC and gamma chlordane were reported in one of the subbasement aqueous samples at estimated concentrations of 310 µg/l and 140 µg/l, respectively. No aroclor compounds were reported in any of the aqueous samples collected from the subbasement of Building #7.

Analytical results of the sediment samples collected from the Building #7 subbasement revealed numerous VOCs with the highest concentrations detected in B7-SED-04 including 1,1,2-trichloro-1,2,2-trifluoroethane (27,000 µg/kg), acetone (11,000 µg/kg), methyl acetate (12,000 µg/kg), methylene chloride (220,000 µg/kg), 2-butanone (120,000 µg/kg), chloroform (110,000 µg/kg), 1,1,1-trichloroethane (1,100,000 µg/kg), trichloroethene (5,200 µg/kg), methylcyclohexane (2,900 µg/kg), 4-methyl-2-pentanone (24,000 µg/kg), toluene (230,000 µg/kg), tetrachloroethene (280,000µg/kg), chlorobenzene (2,200 µg/kg), ethylbenzene (58,000 µg/kg), 1,1,2-trichloroethane (91,000 µg/kg), o-xylene (240,000 µg/kg), m,p-xylene (230,000

Sample Number :	MB0042	
Sampling Location :	B7-PS-03	
ANALYTE	**Result**	**Flag**
ALUMINUM	14.6	J
BARIUM	2	J
CADMIUM	0.073	J
CALCIUM	124	J
CHROMIUM	1.2	
COBALT	0.23	J
COPPER	1.4	J
IRON	1090	J
LEAD	3.4	J
MAGNESIUM	10	J
MANGANESE	4.7	
NICKEL	1.9	J
POTASSIUM	42.9	J
SODIUM	336	J
ZINC	23.2	J

Sample Number :	MB0045	
Sampling Location :	B7-CS-02	
ANALYTE	**Result**	**Flag**
BARIUM	0.51	J
CALCIUM	19.1	J
CHROMIUM	0.43	J
COPPER	0.1	J
IRON	511	
LEAD	0.74	
MANGANESE	1.5	
SODIUM	1120	
CYANIDE	0.61	J

Sample Number :	B0043	
Sampling Location :	B7-CS-02	
Volatile Compound	**Result**	**Flag**
Methyl acetate	110	J

Sample Number :	MB0037	
Sampling Location :	B7-PS-01	
ANALYTE	**Result**	**Flag**
BARIUM	14.4	J
SODIUM	21.2	J
ZINC	70.5	

Sample Number :	MB0036	
Sampling Location :	B7-PS-02	
ANALYTE	**Result**	**Flag**
ALUMINUM	3.5	J
BARIUM	182	
CALCIUM	114	J
CHROMIUM	0.14	J
COPPER	41.2	
IRON	25.9	
LEAD	3.6	
MAGNESIUM	3.1	J
MANGANESE	0.97	
MERCURY	0.1	
ZINC	409	

Sample Number :	B0040	
Sampling Location :	B7-DS-02	
Volatile Compound	**Result**	**Flag**
Methylene chloride	380	J
Toluene	4100	J
Ethylbenzene	250000	J
o-Xylene	390000	J
m,p-Xylene	710000	J
Isopropylbenzene	21000	J

Sample Number :	MB0040	
Sampling Location :	B7-DS-02	
ANALYTE	**Result**	**Flag**
ALUMINUM	6.4	J
BARIUM	0.29	J
CALCIUM	161	J
CHROMIUM	6.5	
COPPER	1.1	J
IRON	198	
LEAD	2.5	
MAGNESIUM	31.9	J
MANGANESE	2.5	
ZINC	6.8	

Sample Number :	B0016	
Sampling Location :	B7-TAR-01	
Volatile Compound	**Result**	**Flag**
Acetone	1600	
Methyl acetate	170	J
Methylene chloride	300	
2-Butanone	260	J
Cyclohexane	63	J
Methylcyclohexane	700	
Toluene	130	J
Ethylbenzene	460	
o-Xylene	2700	
m,p-Xylene	2900	
Isopropylbenzene	1000	

Sample Number :	B0016	
Sampling Location :	B7-TAR-01	
Semivolatile Compound	Result	Flag
Acetophenone	83000	J
Naphthalene	79000	J
2-Methylnaphthalene	21000	J
4,6-Dinitro-2-methylphenol	11000	J

Sample Number :	MB0035	
Sampling Location :	B7-DS-01	
ANALYTE	**Result**	**Flag**
ALUMINUM	6190	
ARSENIC	1.1	
BARIUM	149	
BERYLLIUM	1.2	
CADMIUM	0.25	J
CALCIUM	8200	
CHROMIUM	16.8	J
COBALT	10.2	
COPPER	5	
IRON	5620	J
LEAD	8.7	J
MAGNESIUM	4630	
MANGANESE	65.1	J
NICKEL	9.7	
POTASSIUM	987	
SELENIUM	0.89	J
SODIUM	216	J
VANADIUM	20.9	
ZINC	121	J
CYANIDE	3.6	J

B7-PS-03
B7-CS-02
B7-PS-01
B7-PS-02
B7-DS-02
B7-TAR-01
B7-DS-01

Stairwell
Freight elevator
Loading dock
Stairs
Loading dock
Transformers
Stairs

BK-012 (ND)
B7-SED-02
B7-SED-03
B7-BW-01
B7-BW-03
BK-011 (45% Chrysotile)
BK-001 (70% Chrysotile)
BK-003 (15% Chrysotile)
BK-002 (65% Chrysotile)
B7-SED-04
B7-BW-02

Legend

- Aqueous sampling location
- Sediment sampling location
- Asbestos Sampling location
- Tar/resin-like material
- Manhole to subbasement
- 55-gallon drum
- Empty 55-gallon drum
- 5-gallon container
- Empty 5-gallon container
- Overhead door

0 5 10 15 20 Feet

Source: Modified from DigitalGlobe aerial photography, September 19, 2009, and from Soil & Groundwater Sampling Plan, Drawing 092976-SP-1, PMK Group, Inc., October 16, 2009.
Note: Asbestos samples analyzed by Polar Light Microscopy (PLM), sampling results (in percent asbestos) are given in parentheses below each sample ID. All organic compound results shown in ug/kg, all inorganic compound results shown in mg/kg.

29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 12
Analytical Results, Waste/Asbestos Samples, Building 7, 1st Floor

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on August 23, 2010
by D. Call, Tetra Tech EM Inc.

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Sample Number :	MB007
Sampling Location :	B12-PS-01

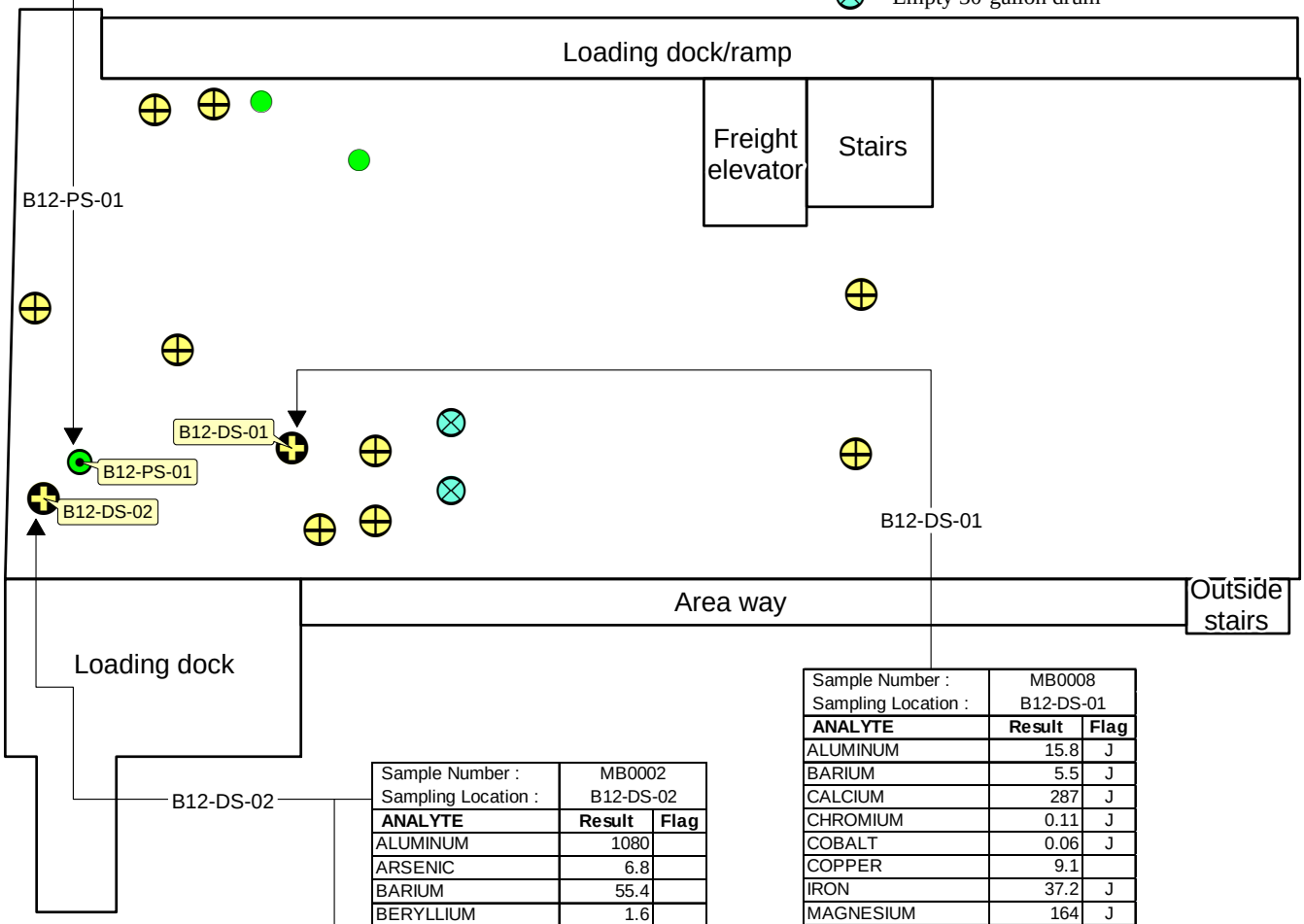
ANALYTE	Result	Flag
CHROMIUM	0.056	J
IRON	1.9	J
ZINC	0.13	J

Sample Number :	B0007
Sampling Location :	B12-PS-01

Volatile Compound	Result	Flag
Acetone	13000000	J
2-Butanone	67000	J

Legend

- 55-gallon drum
- Empty 55-gallon drum
- 5-gallon container
- Empty 5-gallon container
- Empty 30-gallon drum



Sample Number :	MB0008
Sampling Location :	B12-DS-01

ANALYTE	Result	Flag
ALUMINUM	15.8	J
BARIUM	5.5	J
CALCIUM	287	J
CHROMIUM	0.11	J
COBALT	0.06	J
COPPER	9.1	
IRON	37.2	J
MAGNESIUM	164	J
MANGANESE	3.8	
MERCURY	0.052	J
NICKEL	0.49	J
POTASSIUM	5510	
SODIUM	428	J

Sample Number :	MB0002
Sampling Location :	B12-DS-02

ANALYTE	Result	Flag
ALUMINUM	1080	
ARSENIC	6.8	
BARIUM	55.4	
BERYLLIUM	1.6	
CADMIUM	0.069	J
CALCIUM	1460	J
CHROMIUM	11.4	J
COBALT	5.7	
COPPER	22.4	J
IRON	3850	J
MAGNESIUM	210	J
MANGANESE	51.3	J
NICKEL	26.3	
POTASSIUM	91.1	J
SELENIUM	1.6	J
SODIUM	143	J
VANADIUM	12.4	

Sample Number :	B0008
Sampling Location :	B12-DS-01

Volatile Compound	Result	Flag
Methylene chloride	32000	J
Bromochloromethane	2300	J

Sample Number :	B0002
Sampling Location :	B12-DS-02

Volatile Compound	Result	Flag
Acetone	39000	J
Methyl acetate	11000	J
Methylene chloride	5500	J
Methyl tert-butyl ether	3100	J
1,1,1-Trichloroethane	2100	J
Cyclohexane	13000	J
Carbon tetrachloride	720	J

Source: Modified from DigitalGlobe aerial photography, September 19, 2009, and from Soil & Groundwater Sampling Plan, Drawing 092976-SP-1, PMK Group, Inc., October 16, 2009.
Note: All organic compound results shown in ug/kg, all inorganic compound results shown in mg/kg.

0 25 50 Feet

Approximate Site Location =

New Jersey

29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 13
Analytical Results, Waste/Oil Samples, Building 12, 1st Floor

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on August 31, 2010
by D. Call, Tetra Tech EM Inc.

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µg/kg), 1,3-dichlorobenzene (5,000 µg/kg), 1,4- dichlorobenzene (5,800 µg/kg), 1,2-dichlorobenzene (59,000 µg/kg), 1,3-dichlorobenzene (290,000 µg/kg) and 1,2,3-trichlorobenzene (58,000 µg/kg). Numerous VOC TICs were also detected in these sediment samples.

SVOCs were also detected in Building #7 subbasement sediment samples. The highest concentrations were reported in B7-SED-04 including phenol (2,200,000 µg/kg), 2-methylphenol (4,700,000 µg/kg), acetophenone (430,000 µg/kg), 4-methylphenol (1,400,000 µg/kg), 2,4-dimethylphenol (430,000 µg/kg), 1,1-biphenyl (56,000 µg/kg), 2-chloronaphthalene (110,000 µg/kg), diethylphthalate (240,000 µg/kg), and bis(2-ethylhexyl)phthalate (230,000 µg/kg).

No pesticides, aroclor compounds or significant levels of inorganic compounds were reported in the sediment samples collected from the subbasement of Building #7.

Corrosivity and ignitability analysis was completed for samples B7-SED-02 and B7-SED-03; neither sample exhibited these characteristics.

The analytical data for the samples collected from the subbasement of Building #7 are summarized in Appendix D, Tables 17 through 27 and the sampling locations and concentrations detected above the analytical quantitation limits are presented on Figure 14. The ignitability/corrosivity test results are provided an Attachment 1.

Building # 12 Basement Sampling Results

The only VOC reported above the laboratory quantitation limit in the aqueous sample collected from the sump in the basement of Building #12 was methylene chloride, reported at 13 µg/l. No other organic compounds were reported in this sample.

VOCs reported in the sediment sample collected from the basement of Building #12 include methylene chloride (11,000 µg/kg), m.p-xylene (5,800 µg/kg), bromoform (15,000 µg/kg), 1,3-dichlorobenzene (4,400 µg/kg), 1,2,4-trichlorobenzene (2,600,000 µg/kg) and 1,2,3-trichlorobenzene (1,300,000 µg/kg).

The only SVOC detected in the Building #12 sediment sample was 2-methlylphenol reported at a concentration of 7,100 µg/kg. No pesticides, aroclor compounds or significant levels of inorganic compounds were reported in the sediment sample collected from the basement of Building #12.

Sample Number :	B0013 (Duplicate of B0014)	
Sampling Location :	B7-SED-02 (Duplicate of B7-Sed-03)	
Volatile Compound	**Result ***	**Flag**
1,1,2-Trichloro-1,2,2-trifluoroethane	3700	
Acetone	250	J
Methylene chloride	560	
2-Butanone	230	J
1,1,1-Trichloroethane	230	J
Benzene	430	
Trichloroethene	60	J
Methylcyclohexane	120	J
Toluene	8300	
Tetrachloroethene	2100	
2-Hexanone	2200	
Chlorobenzene	300	
Ethylbenzene	12000	
1,1,2-Trichloroethane	350	
o-Xylene	6100	
m,p-Xylene	7500	
Styrene	2800	
Isopropylbenzene	3800	
1,1,2,2-Tetrachloroethane	2300	
1,3-Dichlorobenzene	560	
1,4-Dichlorobenzene	2600	
1,2-Dichlorobenzene	1300	
1,2,4-Trichlorobenzene	4100	
1,2,3-Trichlorobenzene	1400	

* Highest level reported in duplicate pair shown.

Sample Number :	B0013 (Duplicate of B0014)	
Sampling Location :	B7-SED-02 (Duplicate of B7-Sed-03)	
Semivolatile Compound	**Result***	**Flag**
2-Methylphenol	8900	J
4-Chloroaniline	70000	
2-Methylnaphthalene	4200	
Fluoranthene	4400	

* Highest level reported in duplicate pair shown.

Sample Number :	MB0013 (MB0014)	
Sampling Location :	B7-SED-02 (B7-Sed-03)	
	Dup B7-SED-03	
ANALYTE	**Result***	**Flag**
ALUMINUM	4330	
ARSENIC	4.3	
BARIUM	95.5	
CADMIUM	1.4	
CALCIUM	5000	
CHROMIUM	22.2	
COBALT	8.1	
COPPER	53	
IRON	31700	J
LEAD	171	J
MAGNESIUM	3260	
MANGANESE	156	
MERCURY	0.34	J
NICKEL	20.9	
POTASSIUM	285	J
SELENIUM	2.5	J
SILVER	3.2	
SODIUM	296	J
VANADIUM	18	
ZINC	157	J

* Highest level reported in duplicate pair shown.

Sample Number :	B0003 (Duplicate of B0012)	
Sampling Location :	B7-BW-01 (Duplicate of B7-BW-03)	
	Dup B7-BW-03	
Semivolatile Compound	**Result***	**Flag**
Phenol	500	
2-Methylphenol	1100	
Acetophenone	61	J
4-Methylphenol	90	J
Nitrobenzene	64	J
2,4-Dimethylphenol	64	J
4-Chloroaniline	24	J
Diethylphthalate	41	J

* Highest level reported in duplicate pair shown.

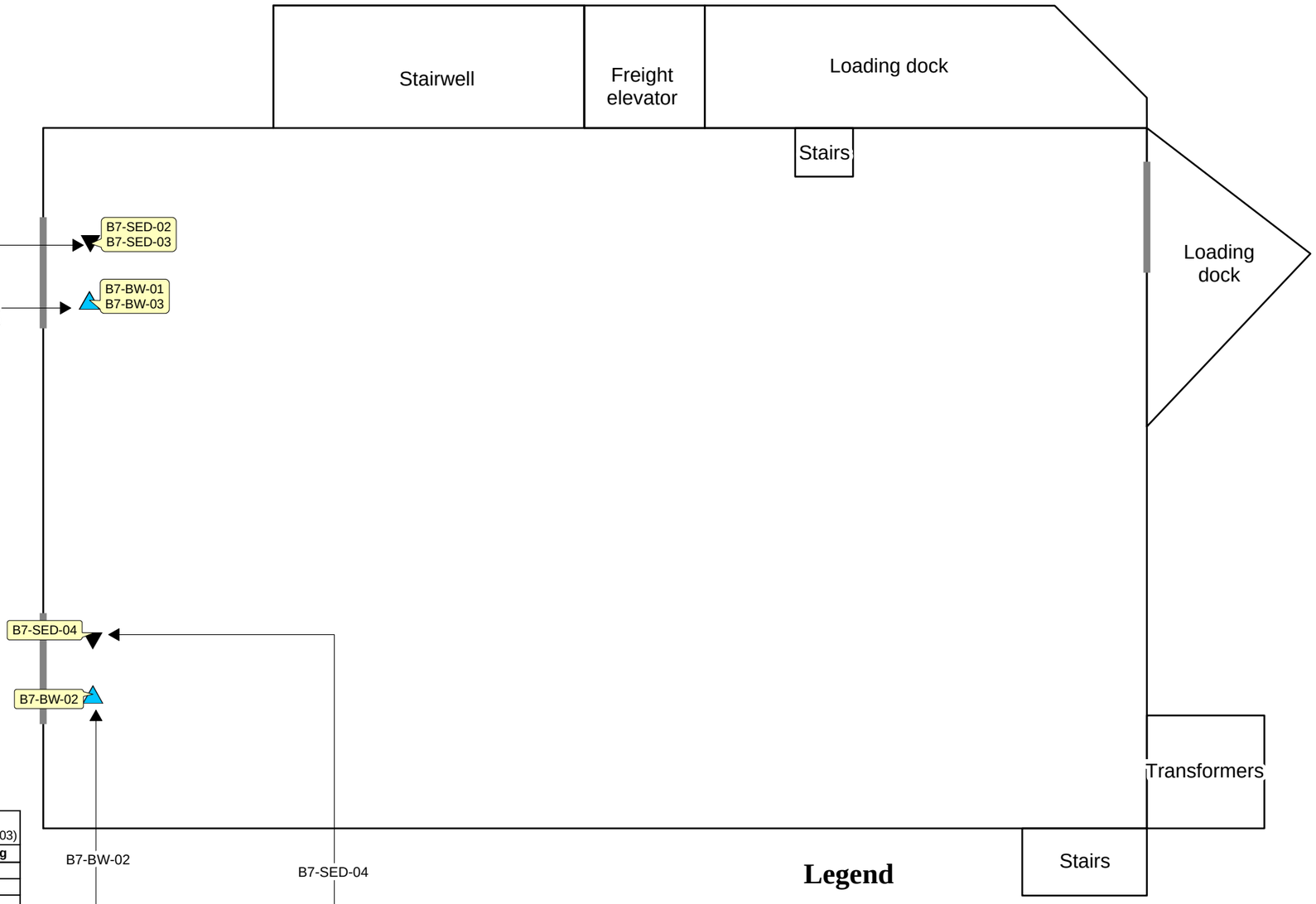
Sample Number :	B0003 (Duplicate of B0012)	
Sampling Location :	B7-BW-01 (Duplicate of B7-BW-03)	
Volatile Compound	**Result***	**Flag**
1,1-Dichloroethene	6.7	J
Acetone	350	
Methyl acetate	13	
Methylene chloride	240	
1,1-Dichloroethane	150	
2-Butanone	370	
Chloroform	10	
1,1,1-Trichloroethane	190	
Carbon tetrachloride	33	J
Benzene	24	
Trichloroethene	19	
4-Methyl-2-pentanone	55	
Toluene	430	
Tetrachloroethene	7.6	J
Chlorobenzene	2.8	J
Ethylbenzene	390	
o-Xylene	74	
m,p-Xylene	110	
Styrene	40	
Isopropylbenzene	15	
1,4-Dichlorobenzene	4.2	J
1,2-Dichlorobenzene	23	
1,2,4-Trichlorobenzene	55	
1,2,3-Trichlorobenzene	14	

* Highest level reported in duplicate pair shown.

Sample Number :	B0015	
Sampling Location :	B7-SED-04	
Semivolatile Compour	**Result**	**Flag**
Phenol	2200000	
2-Methylphenol	4700000	
Acetophenone	430000	J
4-Methylphenol	1400000	
2,4-Dimethylphenol	430000	J
1,1'-Biphenyl	56000	J
2-Chloronaphthalene	110000	J
Diethylphthalate	240000	J
Bis(2-ethylhexyl)phthalate	230000	J

Sample Number :	B0010	
Sampling Location :	B7-BW-02	
Semivolatile Compound	**Result**	**Flag**
Phenol	13000	
2-Methylphenol	13000	
4-Methylphenol	4700	
2,4-Dimethylphenol	670	J
Diethylphthalate	250	J

Sample Number :	MB0015	
Sampling Location :	B7-SED-04	
ANALYTE	**Result**	**Flag**
ALUMINUM	364	
ARSENIC	0.24	J
BARIUM	34.2	
BERYLLIUM	0.02	J
CADMIUM	0.37	
CALCIUM	1400	
CHROMIUM	3.8	
COBALT	1.3	J
COPPER	58.5	
IRON	7320	
LEAD	26.5	
MAGNESIUM	445	
MANGANESE	60.4	
MERCURY	0.18	
NICKEL	4.6	
VANADIUM	2.6	
ZINC	308	



Legend

- Aqueous sampling location
- Sediment sampling location
- Overhead door

0 5 10 15 20 Feet

Source: Modified from DigitalGlobe aerial photography, September 19, 2009, and from Soil & Groundwater Sampling Plan, Drawing 092976-SP-1, PMK Group, Inc., October 16, 2009.
Note: Asbestos samples analyzed by Polar Light Microscopy (PLM), sampling results (in percent asbestos) are given in parentheses below each sample ID. All organic compound results shown in ug/kg, all inorganic compound results shown in mg/kg.

29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 14
Analytical Results, Waste/Asbestos Samples, Building 7, Sub-basement

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on August 31, 2010
by D. Call, Tetra Tech EM Inc.

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The analytical data for the samples collected from the subbasement of Building #12 are summarized in Appendix D, Tables 17 through 27 and the sampling locations and concentrations detected above the analytical quantitation limits are presented on Figure 15.

5.4 RED AND BLUE-COLORED PIGMENT MATERIAL SAMPLING RESULTS

Analytical results for the pigment material samples located on the fourth floor of Building 12 indicate low levels of VOCs including up to 710 µg/kg of acetone, 380 µg/kg of methyl acetate, 300 µg/kg of methylene chloride and 4,300 µg/kg of toluene. SVOCs detected in the pigment material samples include di-n-butylphthalate (1,300 µg/kg) and bis(2-ethylhexyl)phthalate (34,000 µg/kg). Inorganic compounds detected at elevated levels include iron, detected at 102,000 mg/kg and lead detected at 143 mg/kg in B12-PM-01.

Corrosivity and ignitability analysis completed for the two pigment material samples indicated that the samples did not exhibit these characteristics.

The analytical data for the pigment material samples are summarized in Appendix D, Tables 11 through 16 and the sampling locations and concentrations detected above the analytical quantitation limits are presented on Figure 16. The ignitability/corrosivity test results are provided in Attachment 1.

5.5 TAR MATERIAL SAMPLING RESULTS

In addition to the samples collected from Buildings #7 and #12, a composite sample of a tar/resin-like material that was observed along the base of the northeast wall of Building #7 (identified as B7-TAR-01) and also leaching from the bank of the Passaic River (identified as Riverbank-1). Analytical results for sample B7-TAR-01 indicated the presence of numerous VOCs including acetone (1,600 µg/kg), methylene chloride (300 µg/kg), 2-butanone (260 µg/kg), methylcyclohexane (700 µg/kg), ethylbenzene (460 µg/kg), o-xylene (2,700 µg/kg), m,p-xylene (2,900 µg/kg), and isopropylbenzene (1,000 µg/kg). This sample also contained numerous VOC TICs. SVOCs reported in this sample include actophenone (83,000 µg/kg), naphthalene (79,000 µg/kg), 2-methylnaphthalene (21,000 µg/kg) and 4,6-dinitro-2-methylphenol (11,000 µg/kg).

VOC analysis was not completed on the sample collected adjacent to the Passaic River (Riverbank-1). No aroclor compounds were detected in this sample. The only inorganic compound reported at an elevated level was lead at 357 mg/kg. Lead was also reported in the TCLP results at 5,910 µg/l which is above the regulatory level of 5,000 µg/l; no other compound

Sample Number :	MB0009
Sampling Location :	B12-SED-01

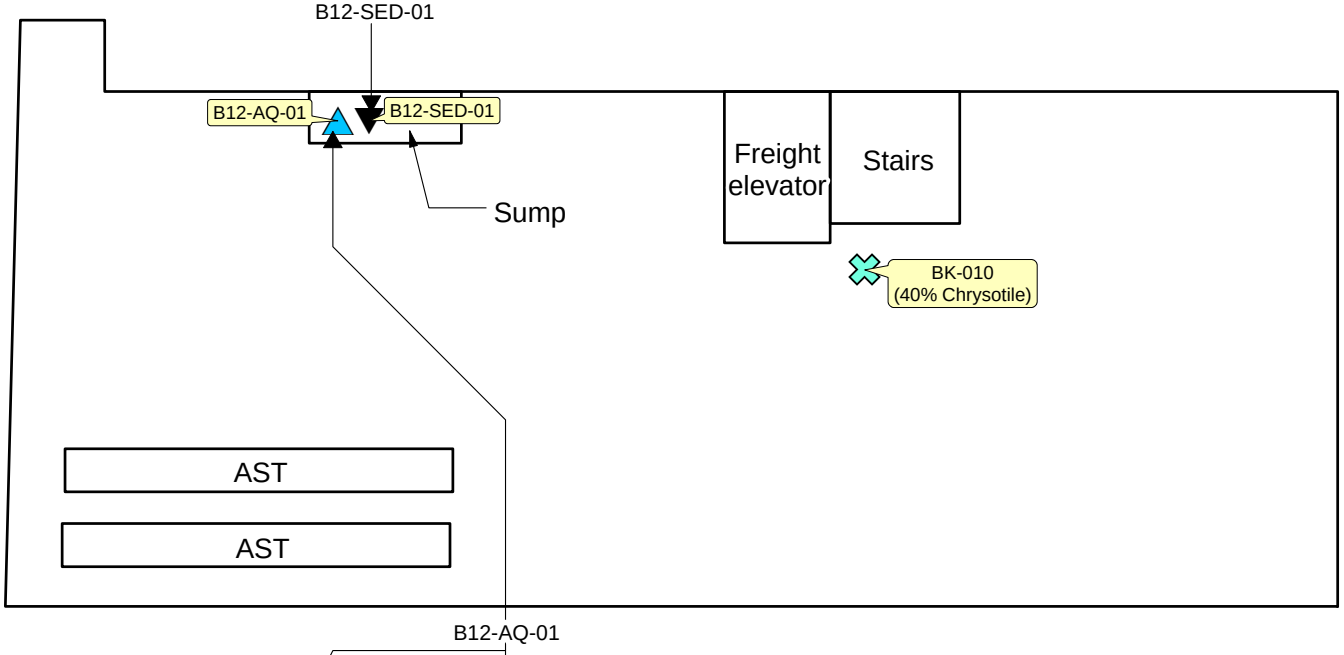
ANALYTE	Result	Flag
CALCIUM	8.6	J
CHROMIUM	0.08	J
IRON	3.9	J
MERCURY	120	J
SODIUM	5.5	J
CYANIDE	4.7	J

Sample Number :	B0009
Sampling Location :	B12-SED-01

Semivolatile Compound	Result	Flag
2-Methylphenol	7100	J

Sample Number :	B0009
Sampling Location :	B12-SED-01

Volatile Compound	Result	Flag
Methylene chloride	11000	J
m,p-Xylene	5800	J
Bromoform	15000	
1,3-Dichlorobenzene	4400	J
1,2,4-Trichlorobenzene	2600000	
1,2,3-Trichlorobenzene	1300000	



Sample Number :	B0004
Sampling Location :	B12-AQ-01

Volatile Compound	Result	Flag
Acetone	8.7	J
Methylene chloride	13	
1,1,1-Trichloroethane	5.5	
Toluene	1.6	J
m,p-Xylene	0.86	J
1,4-Dichlorobenzene	0.58	J
1,2,4-Trichlorobenzene	1.2	J

Sample Number :	B0004
Sampling Location :	B12-AQ-01

Semivolatile Compound	Result	Flag
Di-n-butylphthalate	0.55	J
Bis(2-ethylhexyl)phthalate	2.1	J

Legend

- Aqueous sampling location
- Sediment sampling location
- Asbestos sampling location

Source: Modified from DigitalGlobe aerial photography, September 19, 2009, and from Soil & Groundwater Sampling Plan, Drawing 092976-SP-1, PMK Group, Inc., October 16, 2009.
Note: Asbestos samples analyzed by Polar Light Microscopy (PLM), sampling results (in percent asbestos) are given in parentheses below each sample ID. All organic compound results shown in ug/kg (solid) and ug/L (aqueous), all inorganic compound results shown in mg/kg.

0 25 50 Feet

Approximate Site Location =

New Jersey

29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 15
Analytical Results, Basement Water/Sediment, Building 12, Basement

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on August 31, 2010
by D. Call, Tetra Tech EM Inc.

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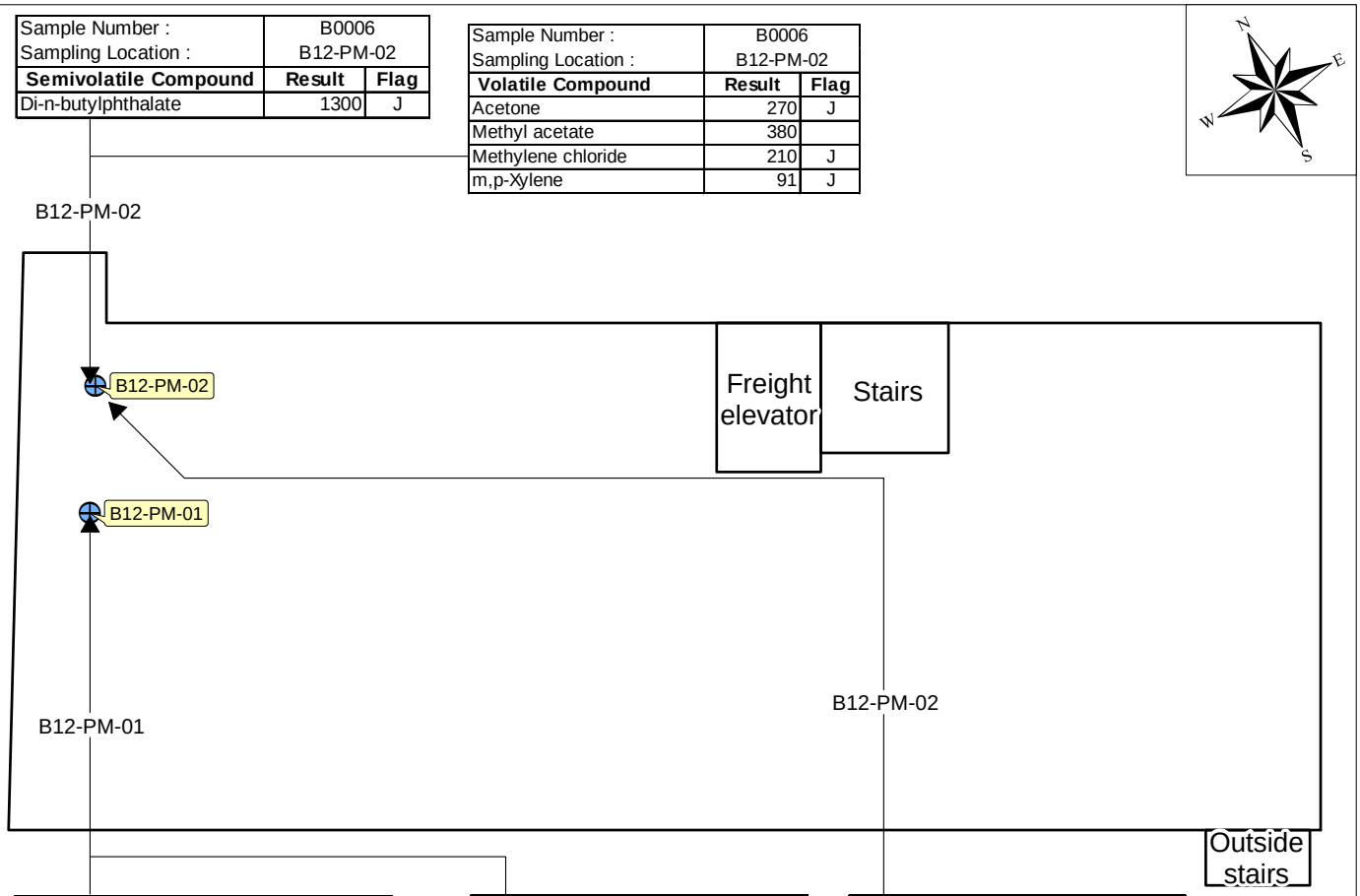
Sample Number :	B0006
Sampling Location :	B12-PM-02

Semivolatile Compound	Result	Flag
Di-n-butylphthalate	1300	J

Sample Number :	B0006
Sampling Location :	B12-PM-02

Volatile Compound	Result	Flag
Acetone	270	J
Methyl acetate	380	
Methylene chloride	210	J
m,p-Xylene	91	J



Sample Number :	B0005
Sampling Location :	B12-PM-01

Semivolatile Compound	Result	Flag
Bis(2-ethylhexyl)phthalate	34000	J

Sample Number :	B0005
Sampling Location :	B12-PM-01

Volatile Compound	Result	Flag
Acetone	710	
Methyl acetate	230	J
Methylene chloride	300	
Toluene	4300	

Sample Number :	MB0005
Sampling Location :	B12-PM-01

ANALYTE	Result	Flag
ALUMINUM	444	
ANTIMONY	1.8	J
ARSENIC	7.2	
BARIUM	86.1	
CADMIUM	3.7	
CALCIUM	33400	J
CHROMIUM	345	J
COBALT	11.7	
COPPER	446	
IRON	102000	J
LEAD	143	J
MAGNESIUM	2580	
MANGANESE	416	J
MERCURY	1.7	J
NICKEL	152	
POTASSIUM	633	
SILVER	7.4	
SODIUM	2760	J
VANADIUM	3.9	J
ZINC	530	J
CYANIDE	3.6	J

Sample Number :	MB0006
Sampling Location :	B12-PM-02

ANALYTE	Result	Flag
ALUMINUM	670	
ANTIMONY	0.57	J
ARSENIC	2.9	
BARIUM	40.6	
CADMIUM	0.98	
CALCIUM	5400	J
CHROMIUM	19.9	J
COBALT	2.1	J
COPPER	9310	
IRON	16000	J
LEAD	30.6	J
MAGNESIUM	3680	
MANGANESE	134	
MERCURY	8.9	J
NICKEL	38.6	
POTASSIUM	9130	
SELENIUM	2.8	J
SILVER	1.7	
SODIUM	3040	J
VANADIUM	2	J
ZINC	188	J

Legend

⊕ Pigment sampling location

Source: Modified from DigitalGlobe aerial photography, September 19, 2009, and from Soil & Groundwater Sampling Plan, Drawing 092976-SP-1, PMK Group, Inc., October 16, 2009.
Note: All organic compound results shown in ug/kg, all inorganic compound results shown in mg/kg.

0 25 50 Feet

Approximate Site Location =

New Jersey

29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 16
Analytical Results, Waste Samples, Building 12, 4th Floor

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on August 31, 2010
by D. Call, Tetra Tech EM Inc.

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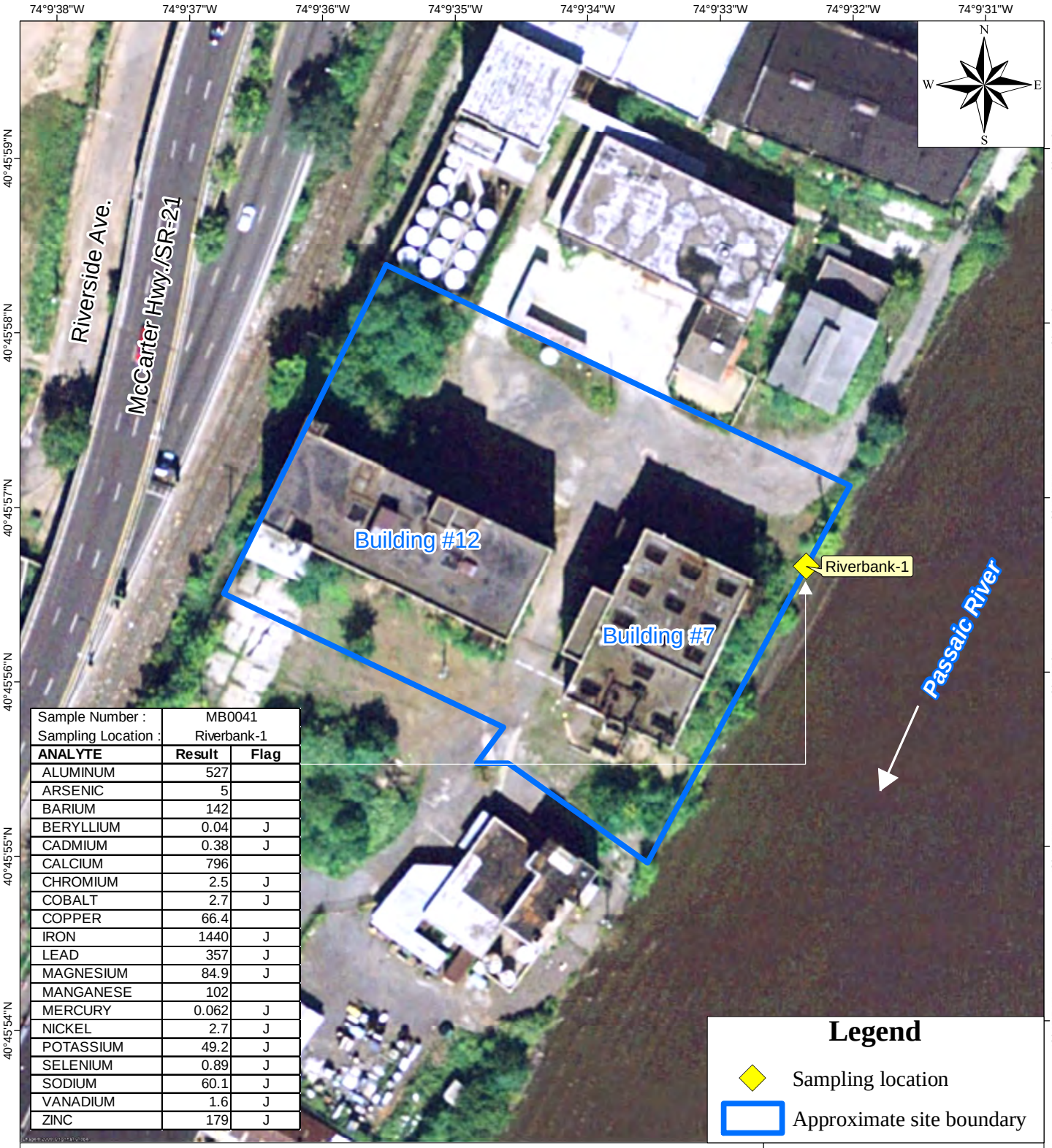
exceeded the corresponding TCLP regulatory level. The analytical data for B7-TAR-01 and Riverbank-1 are summarized in Tables 28 and 34 and the sampling locations and concentrations detected above the analytical quantitation limits are presented on Figures 12 and 17.

5.6 POTENTIAL ASBESTOS CONTAINING MATERIAL SAMPLING

Analytical results for the 11 bulk samples collected from pipe insulation contained inside and outside of Buildings # 7 and the one bulk sample of pipe insulation in the basement of Building #12 indicated varying amounts of asbestos fibers. The percentage of chrysotile asbestos fibers reported in the four bulk samples collected from the first floor of Building #7 ranged from non-detectable amounts to 70%. Results for the two bulk samples collected from the second floor of Building #7 indicated 10% chrysotile asbestos in one sample and 15% chrysotile and 40% amosite asbestos in the second sample. The four bulk samples collected from the third floor of Building #7 contained between 10% to 70% chryotile asbestos and the one sample collected from the basement of Building #12 contained 40% chryotile asbestos. The locations where the bulk samples were collected are provided in Figures 10 through 12 and Figure 15. The asbestos analytical results report is provided in Attachment 2.



Sample Number :	MB0041	
Sampling Location :	Riverbank-1	
ANALYTE	**Result**	**Flag**
ALUMINUM	527	
ARSENIC	5	
BARIUM	142	
BERYLLIUM	0.04	J
CADMIUM	0.38	J
CALCIUM	796	
CHROMIUM	2.5	J
COBALT	2.7	J
COPPER	66.4	
IRON	1440	J
LEAD	357	J
MAGNESIUM	84.9	J
MANGANESE	102	
MERCURY	0.062	J
NICKEL	2.7	J
POTASSIUM	49.2	J
SELENIUM	0.89	J
SODIUM	60.1	J
VANADIUM	1.6	J
ZINC	179	J

Legend

Sampling location

Approximate site boundary

Source: Modified from DigitalGlobe aerial photography, September 19, 2009.
Note: Results shown in millgrams per kilogram (mg/kg).

0 50 100 Feet

Approximate Site Location =

New Jersey

29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 17
Analytical Results, Riverbank Sample

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on September 1, 2010
by D. Call, Tetra Tech EM Inc.

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6.0 SUMMARY

Analytical results reported from samples collected during this assessment indicate the following:

Building #7 Subbasement

- The sediment samples collected from the subbasement contained numerous hazardous substances including VOCs and SVOCs. Specifically, the following VOCs were detected in B7-SED-04: 1,1,2-trichloro-1,2,2-trifluoroethane (27,000 µg/kg), acetone (11,000 µg/kg), methyl acetate (12,000 µg/kg), methylene chloride (220,000 µg/kg), 2-butanone (120,000 µg/kg), chloroform (110,000 µg/kg), 1,1,1-trichloroethane (1,100,000 µg/kg), trichloroethene (5,200 µg/kg), methylcyclohexane (2,900 µg/kg), 4-methyl-2-pentanone (24,000 µg/kg), toluene (230,000 µg/kg), tetrachloroethene (280,000µg/kg), chlorobenzene (2,200 µg/kg), ethylbenzene (58,000 µg/kg), 1,1,2-trichloroethane (91,000 µg/kg), o-xylene (240,000 µg/kg), m,p-xylene (230,000 µg/kg), 1,3-dichlorobenzene (5,000 µg/kg), 1,4- dichlorobenzene (5,800 µg/kg), 1,2-dichlorobenzene (59,000 µg/kg), 1,3-dichlorobenzene (290,000 µg/kg) and 1,2,3-trichlorobenzene (58,000 µg/kg).

- Numerous SVOCs were also detected in B7-SED-04 including: phenol (2,200,000 µg/kg), 2-methylphenol (4,700,000 µg/kg), acetophenone (430,000 µg/kg), 4-methylphenol (1,400,000 µg/kg), 2,4-dimethylphenol (430,000 µg/kg), 1,1-biphenyl (56,000 µg/kg), 2-chloronaphthalene (110,000 µg/kg), diethylphthalate (240,000 µg/kg), and bis(2-ethylhexyl)phthalate (230,000 µg/kg).

Building #7 First Floor

- The 55-gallon drum identified as DS-02 contains a mixture of VOCs including methylene chloride (380 µg/kg), toluene (4,100 µg/kg), ethylbenzene (250,000 µg/kg), o-xylene (390,000 µg/kg), m,p-xylene (710,000 µg/kg) and isopropylbenzene (21,000 µg/kg).

- Asbestos-containing fibers exist in pipe insulation present on the first floor of Building #7.

Building #7 Second Floor

- The 30-gallon carboy where sample B7-CS-03 was collected contained 410 µg/kg of methylene chloride.

- Asbestos-containing fibers exist in pipe insulation present on the second floor of Building #7.

Building #7 Third Floor

- Tanks 14 and 17 contain VOCs including acetone (1,100 µg/kg), xylene (630 µg/kg) and methylene chloride (560 µg/kg).

- VOCs TICs were identified in tanks 5, 9 and 14.

- Analytical results for the composite sample, B7-P-01 collected of the resin-like material present in the third floor tank process lines and pipes also indicated the presence of VOCs including acetone (780 µg/kg), methylcyclohexane (3,200 µg/kg), toluene (3,200 µg/kg), ethylbenzene (150,000 µg/kg), o-xylene (29,000 µg/kg), m,p-xylene (65,000 µg/kg) and isopropylbenzene (7,700 µg/kg).

- Asbestos-containing fibers exist in pipe insulation present on the third floor of Building #7.

Building #12 Basement

- VOCs exist in the sediments located in the basement of Building #12 including methylene chloride (11,000 µg/kg), m.p-xylene (5,800 µg/kg), bromoform (15,000 µg/kg), 1,3-dichlorobenzene (4,400 µg/kg), 1,2,4-trichlorobenzene (2,600,000 µg/kg) and 1,2,3-trichlorobenzene (1,300,000 µg/kg).

- Asbestos-containing fibers exist in pipe insulation present in the basement of Building #12.

Building #12 First Floor

- The 55-gallon drum where sample B12-DS-01 was collected contained VOCs including methylene chloride (32,000 µg/kg) and bromochloromethane (2,300 µg/kg).

- The 55-gallon drum where B12-DS-02 was collected also contained VOCs including acetone (39,000 µg/kg), methyl acetate (11,000 µg/kg), methylene chloride (5,500 µg/kg), methyl tert-butyl ether (3,100 µg/kg) 1,1,1-trichloroethane (2,100 µg/kg), cyclohexane (13,000 µg/kg) and carbon tetrachloride (720 µg/kg).

- The oily sample collected from the pail identified as PS-01 contained acetone (13,000,000 µg/kg) and 2-butanone (67,000 µg/kg).

Building #12 – Fourth Floor Pigment Material

- The pigment material located on the fourth floor of Building #12 contains VOCs and SVOCs including acetone (710 µg/kg), methyl acetate (380 µg/kg), methylene chloride (300 µg/kg) and toluene (4,300 µg/kg). SVOCs detected in the pigment material samples include di-n-butylphthalate (1,300 µg/kg) and bis(2-ethylhexyl)phthalate (34,000 µg/kg). Inorganic compounds detected at elevated levels include iron, detected at 102,000 mg/kg and lead detected at 143 mg/kg in B12-PM-01.

In addition to the interior samples detailed above collected within Buildings #7 and 12, two samples of the tar-like material that was observed leaching from the bank of the Passaic River and at the base of the northeast wall of Building #7 were also sampled. Analytical results for the sample collected from near the wall of Building #7 indicated the presence of numerous VOCs and SVOCs including acetone (1,600 µg/kg), methylene chloride (300 µg/kg), 2-butanone (260 µg/kg), methylcyclohexane (700 µg/kg), ethylbenzene (460 µg/kg), o-xylene (2,700 µg/kg), m,p-xylene (2,900 µg/kg), and isopropylbenzene (1,000 µg/kg), actophenone (83,000 µg/kg), naphthalene (79,000 µg/kg), 2-methylnaphthalene (21,000 µg/kg) and 4,6-dinitro-2-methylphenol (11,000 µg/kg). VOC analysis was not completed on the sample collected adjacent to the Passaic River; however, TCLP analysis of this sample indicated lead at 5,910 µg/l which is above the regulatory level of 5,000 µg/l.